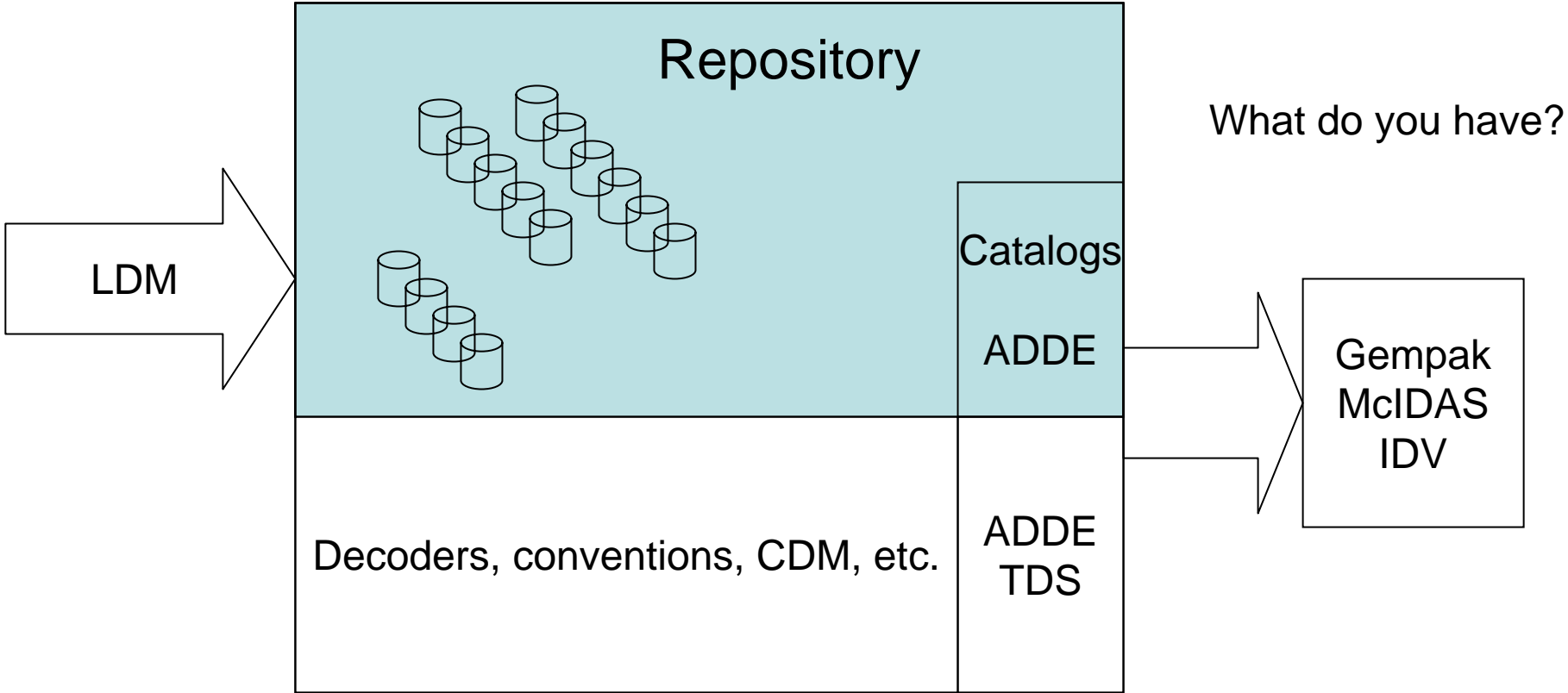


# Unidata Technologies



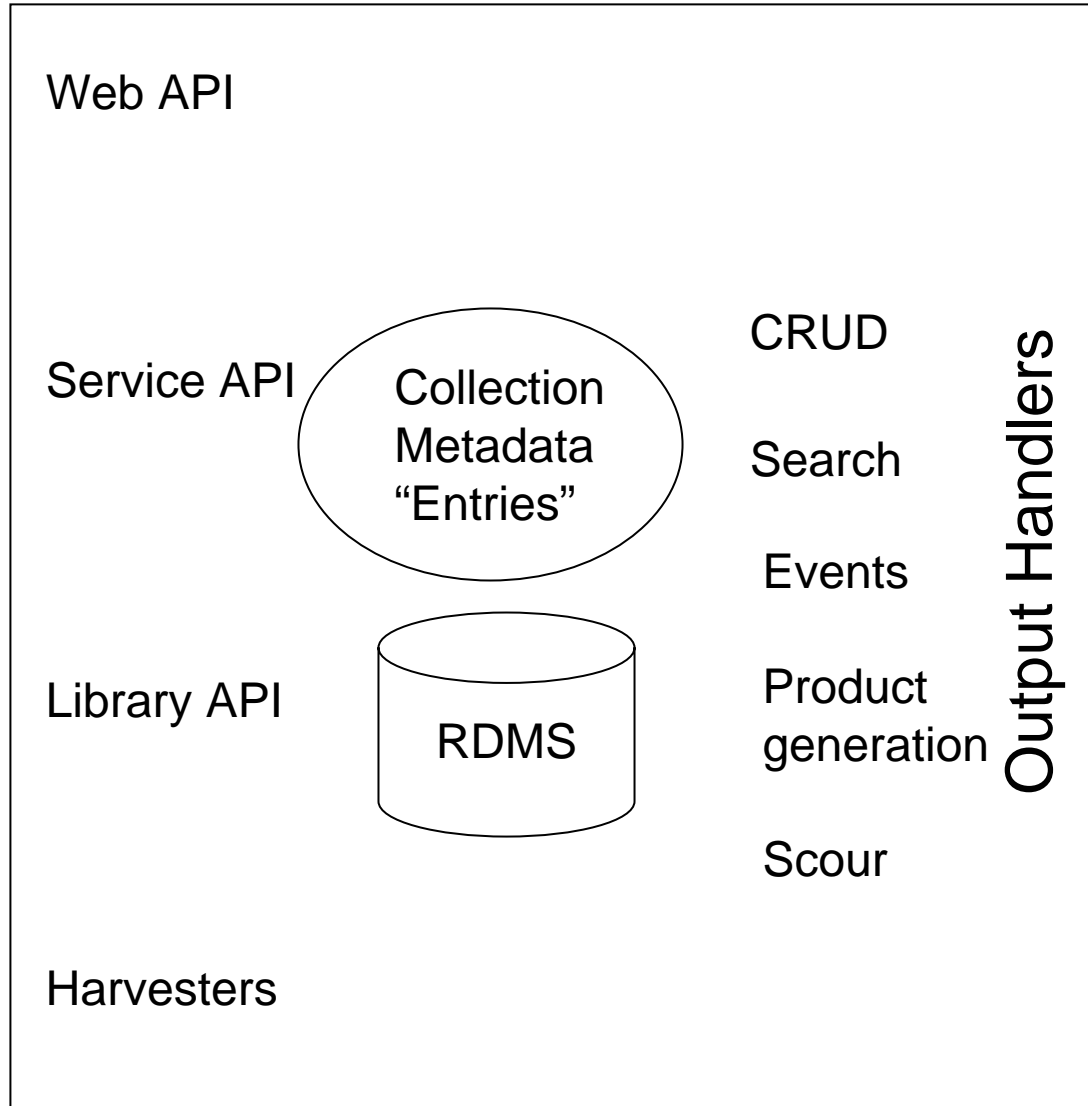
# Repository Usage Contexts

- Local Client
- Home Machine
- “Youtube” of data
- Field Projects, e.g., VOC
- IDD
- Federated Repositories

End user



# Repository



HTML

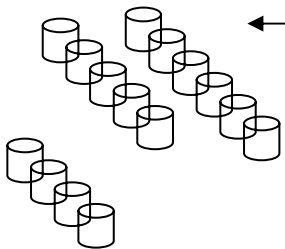
→ RSS

Catalog

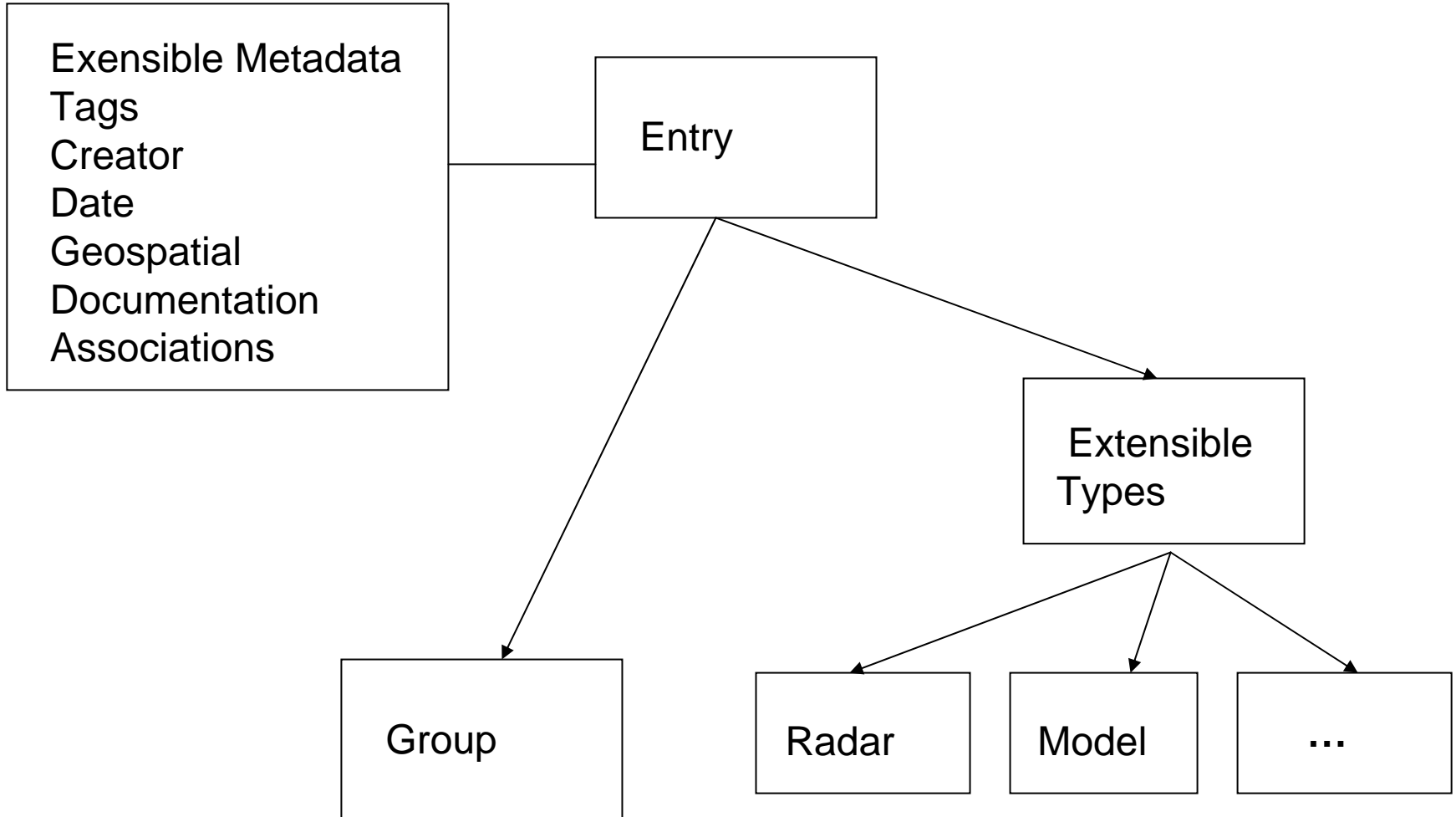
Etc.

External services  
(e.g., LDM)

Embedded Client

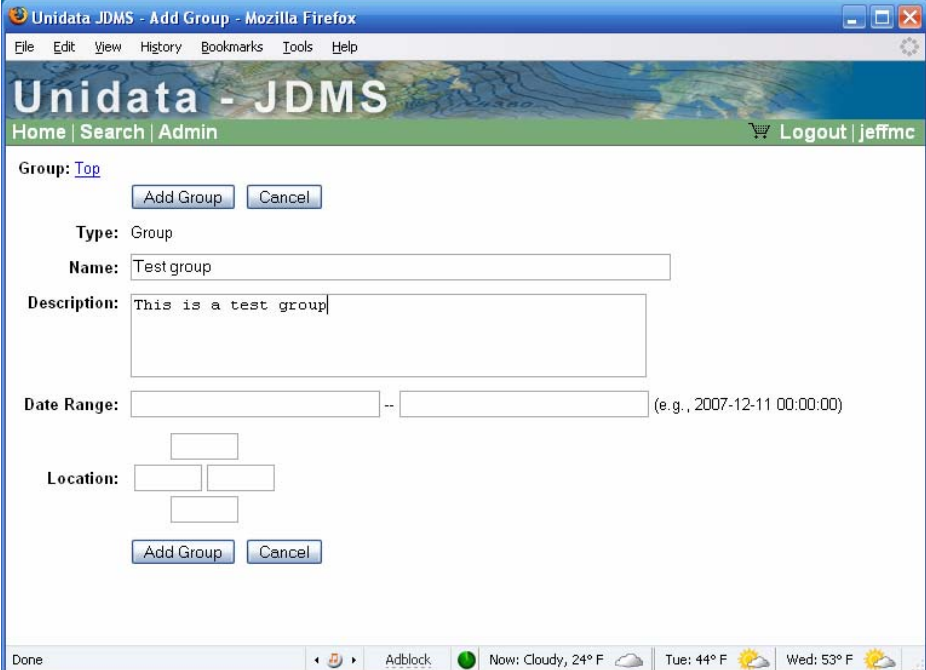


# Data Model



# Create a group

- Create a new group entry
- Common metadata- name, description, date range, geospatial
- All but name is optional



The screenshot shows a web browser window titled "Unidata JDMS - Add Group - Mozilla Firefox". The browser's address bar shows "Unidata - JDMS" and navigation links for "Home", "Search", and "Admin". A "Logout | jeffmc" link is visible in the top right. The main content area is a form for adding a new group. It includes a "Group:" label with a "Top" link, an "Add Group" button, and a "Cancel" button. The "Type:" field is set to "Group". The "Name:" field contains "Test group". The "Description:" field contains "This is a test group". The "Date Range:" field has two empty input boxes separated by "--" and a note "(e.g., 2007-12-11 00:00:00)". The "Location:" field has three empty input boxes. At the bottom of the form are "Add Group" and "Cancel" buttons. The browser's status bar at the bottom shows "Done", "Adblock", and weather information: "Now: Cloudy, 24° F", "Tue: 44° F", and "Wed: 53° F".

# Specify access

- Role based access control
- Hierarchical – child entries inherit access
- Actions – view, edit, delete, etc.

Unidata JDMS - Edit Access - Mozilla Firefox

File Edit View History Bookmarks Tools Help

## Unidata - JDMS

Home | Search | Admin Logout | jeffmc

Edit Entry | Edit Metadata | Add Metadata | Access | Delete

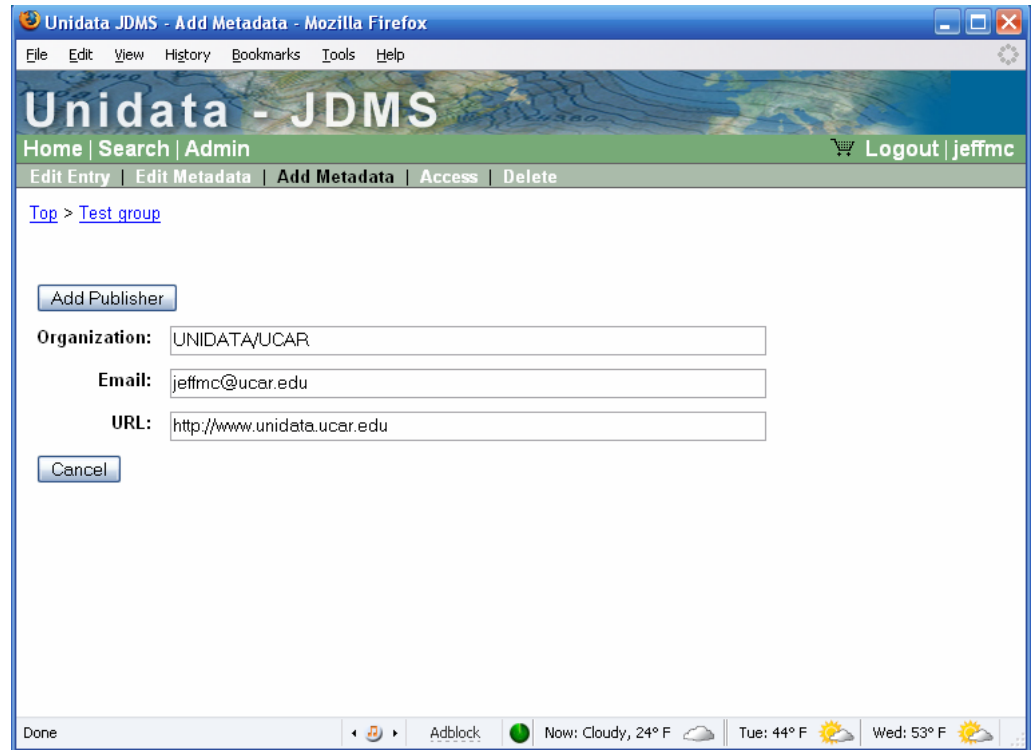
[Top > Test group](#)  
[Change Access](#)

Action	Role (one per line)	All Roles	Current settings:					
View	<input type="text" value="any"/>	any foo bar anotherrole	Entry	View	Edit	New	Delete	Comment
Edit	<input type="text" value="mygroup"/>		<a href="#">Test group</a>	any	mygroup			
New	<input type="text"/>		<a href="#">Top</a>	any				any
Delete	<input type="text"/>							

Done Adblock Now: Cloudy, 24° F Tue: 44° F Wed: 53° F

# Define metadata

- Any number of metadata definitions
- Extensible – easy to add new types
- Searchable



The screenshot shows a web browser window titled "Unidata JDMS - Add Metadata - Mozilla Firefox". The browser's address bar is empty. The page header includes a menu with "File", "Edit", "View", "History", "Bookmarks", "Tools", and "Help". Below the header, the page title is "Unidata - JDMS" with navigation links for "Home", "Search", and "Admin". A "Logout | jeffmc" link is visible in the top right. A secondary navigation bar contains "Edit Entry", "Edit Metadata", "Add Metadata", "Access", and "Delete". The main content area shows a breadcrumb trail "Top > Test group" and an "Add Publisher" button. Below this, there are three input fields: "Organization:" with the value "UNIDATAUCAR", "Email:" with the value "jeffmc@ucar.edu", and "URL:" with the value "http://www.unidata.ucar.edu". A "Cancel" button is located below the input fields. The browser's status bar at the bottom shows "Done", "Adblock", and weather information: "Now: Cloudy, 24° F", "Tue: 44° F", and "Wed: 53° F".

# View Metadata






Unidata JDMS - Top > Test group - Mozilla Firefox

File Edit View History Bookmarks Tools Help

## Unidata - JDMS

Home | Search | Admin Logout | jeffmc

Entry | Timeline | Entries XML | Thredds Catalog | Graph

[Top](#) > **Test group**     

This is a test group

---





[- Details](#)

**Summary:** This is a test group

**Tag:** Hurricane

**Link:** [Unidata web site](#)

**Publisher:** UNIDATA/UCAR  
Email: [jeffmc@ucar.edu](mailto:jeffmc@ucar.edu)  
URL: <http://www.unidata.ucar.edu>

Done Adblock  Now: Cloudy, 24° F  Tue: 44° F  Wed: 53° F 



# Upload Radar File

- Specify name, file, geospatial, product, etc.
- Its possible to crack open files to harvest metadata

The screenshot shows a web browser window titled "Unidata JDMS - Add Level 3 Radar File - Mozilla Firefox". The page header includes "Unidata - JDMS" and navigation links for "Home", "Search", and "Admin". A user is logged in as "jeffmc". The main content area is a form for adding a radar file. It includes a "Group" dropdown set to "Test group", an "Add Level 3 Radar File" button, and a "Cancel" button. The "Type" is set to "Level 3 Radar File". The "Name" field contains "Test radar". The "Description" field is empty. The "File" field contains a local path "C:\cygwin\home\jeffmc\unidata\data\radar\N0R\_20080226\_0236" and a "Browse..." button. There is an unchecked "Unzip archive" checkbox. The "Or URL:" field is empty. The "Date Range:" field has two empty input boxes and a "(e.g., 2007-12-11 00:00:00)" example. The "Date Pattern:" is set to "yyyyMMdd\_HHmm" with a "(use file name)" note. The "Location:" field has three input boxes with values "45.8", "-93.1", and "-89.1", and a fourth empty box with "41.8". The "Station:" dropdown is set to "APX - La Crosse". The "Product:" dropdown is set to "(N0R) Radar .5 reflectivity .54nm res 16 levels id 19/r". At the bottom of the form are "Add Level 3 Radar File" and "Cancel" buttons. The browser's status bar at the bottom shows "Done", "Adblock", and weather information: "Now: Partly Cloudy, 22° F", "Tue: 44° F", and "Wed: 53° F".

# View Details






Unidata JDMS - Entry: Test radar - Mozilla Firefox

File Edit View History Bookmarks Tools Help

## Unidata - JDMS

Home | Search | Admin Logout | jeffmc

Entry | Entries XML | RSS Feed | Thredds Catalog | Zip File | Graph | Preview Image

[Top](#) > [Test group](#) > **Test radar**     

◀ ▶

**Name:** Test radar

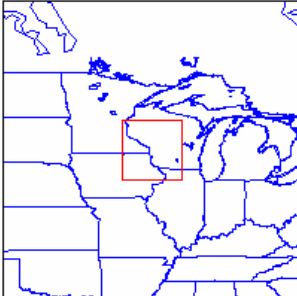
**Created by:** jeffmc @ 2008-02-26 13:13:05 GMT

**Resource:** C:\Documents and Settings\jeffmc\unidata\repository\storage\1204030731031\_0.8904643540493178\_16\_NOR\_20080226\_0236

**Size:** 17166 bytes







**Date:** 2008-02-26 02:36:00 GMT

**Type:** Level 3 Radar File

**Area:** 

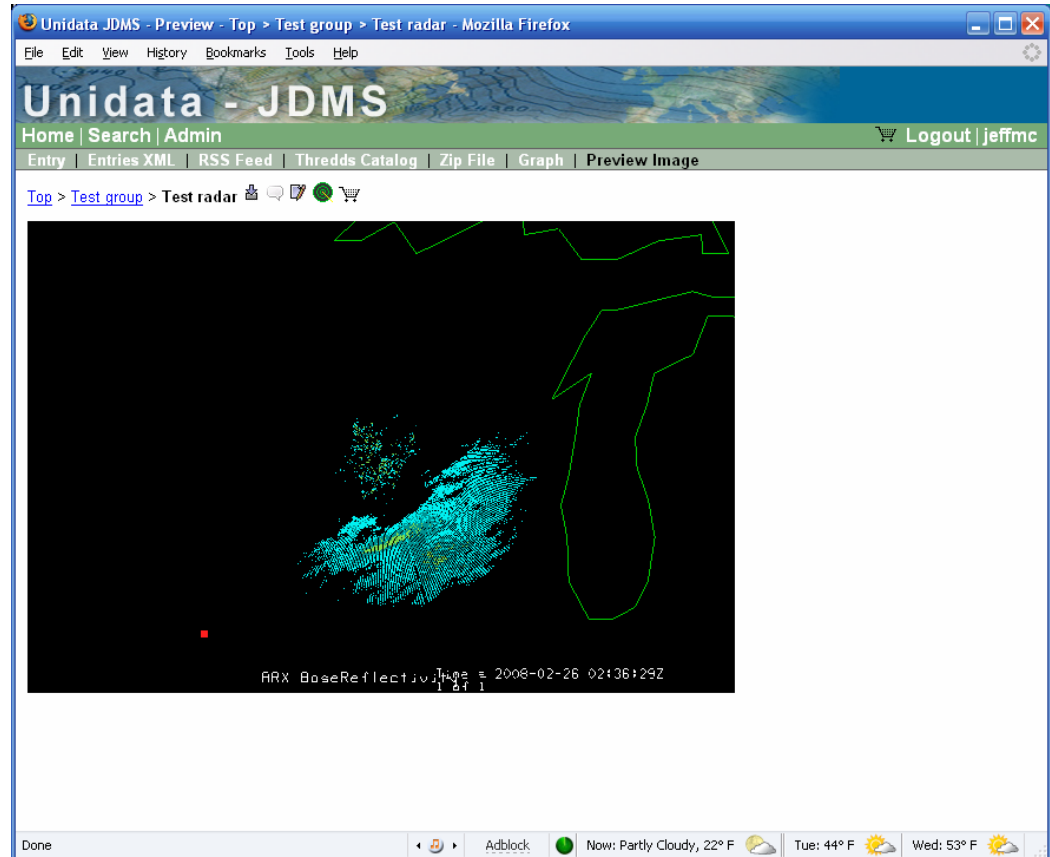
**Station:** ARX

**Product:** NOR

Done   Adblock  Now: Partly Cloudy, 22° F  Tue: 44° F  Wed: 53° F 

# Preview Data

- Dynamically generated IDV imagery, movies, etc.



# Search

- Search on:
  - type
  - geospatial
  - metadata
  - text
  - sub types (e.g., station)
  - etc.

Unidata JDMS - Search Form - Mozilla Firefox

File Edit View History Bookmarks Tools Help

## Unidata - JDMS

Home | Search | Admin Logout | jeffmc

Type:   Exclude groups

Text:

Date Range:  --  (e.g., 2007-12-11 00:00:00)

**+ Advanced**

**- Metadata**

Tag:

GCMD Science Keyword:

Documentation:

Keyword:

Project:

Creator:

Contributor:

Publisher:

Done Adblock Now: Cloudy, 24° F Tue: 44° F Wed: 53° F

# Sub-Type Search

Unidata JDMS - Search Form - Mozilla Firefox

File Edit View History Bookmarks Tools Help

## Unidata - JDMS

Home | Search | Admin Logout | jeffmc

Type:   Exclude groups

Text:   Search metadata

Date Range:  --  (e.g., 2007-12-11 00:00:00)

**+ Advanced**

Station:

Product:

**+ Metadata**

Output Type:  Order by:   ascending

Done Adblock Now: Cloudy, 24° F Tue: 44° F Wed: 53° F

# Search Results as Timeline

The screenshot shows a Mozilla Firefox browser window titled "Unidata JDMS - Search Results - Mozilla Firefox". The page header includes "Unidata - JDMS" and navigation links for "Home", "Search", "Admin", "Logout", and "jeffmc". Below the header, there are links for "Entry", "Timeline", "Entries XML", "RSS Feed", "Thredds Catalog", and "Graph". The main content area displays "Results: 1-100" with a "Next" link. Under the "Entries:" section, a timeline visualization shows data points as blue bars along a horizontal axis representing time from 2008-02-13 00:00 GMT to 2008-02-14 02:00 GMT. The timeline is divided into 2-hour intervals, with labels for 02:00, 04:00, 06:00, 08:00, 10:00, 12:00, 14:00, 16:00, 18:00, 20:00, 22:00, and 00:00. A "View selected entries" button is located at the bottom right of the timeline. Below the timeline, there are buttons for "Get selected" and "Get all", and a dropdown menu set to "As: Entry". A list of search results follows, each with a checkbox and a timestamp in GMT format, ranging from 17:53:00 GMT to 15:07:00 GMT. The bottom status bar shows "Applet ucar.unidata.ui.TimelineApplet started" and weather information: "Now: Cloudy, 24° F", "Tue: 44° F", and "Wed: 53° F".

Unidata JDMS - Search Results - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Unidata - JDMS

Home | Search | Admin Logout | jeffmc

Entry | Timeline | Entries XML | RSS Feed | Thredds Catalog | Graph

Results: 1-100 [Next](#)

Entries:

2008-02-13 00:00 GMT 2008-02-14 02:00 GMT

02:00 04:00 06:00 08:00 10:00 12:00 14:00 16:00 18:00 20:00 22:00 00:00

13/06 13/12 13/18 14/00

View selected entries

Get selected Get all As: Entry

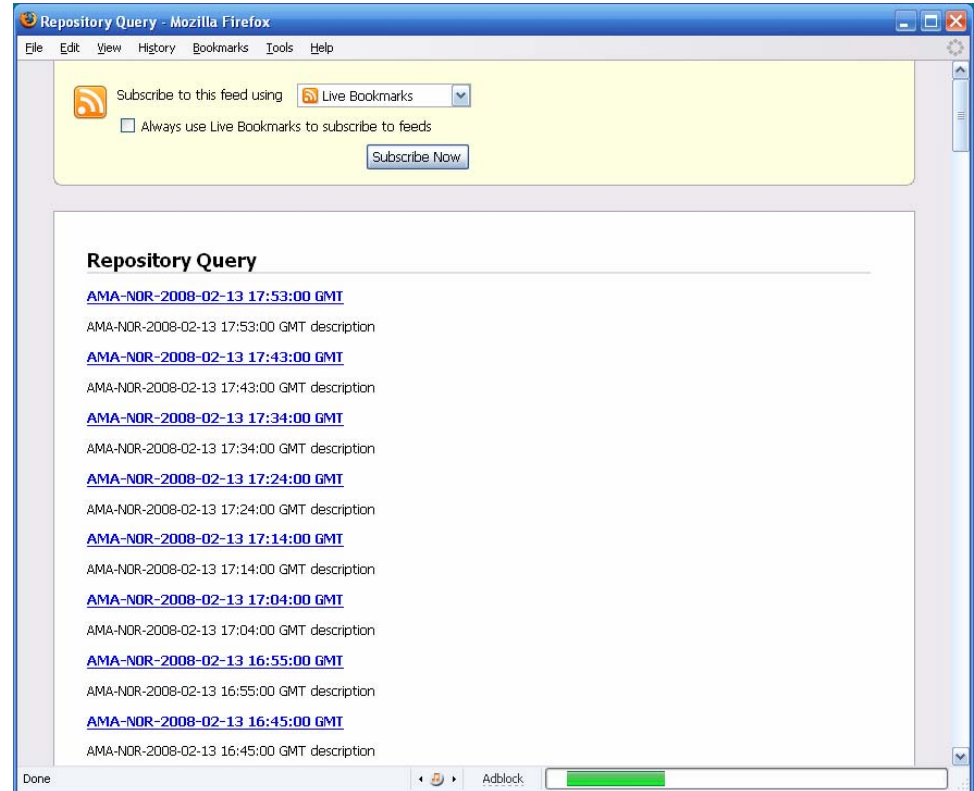
- [AMA-NOR-2008-02-13 17:53:00 GMT](#)
- [AMA-NOR-2008-02-13 17:43:00 GMT](#)
- [AMA-NOR-2008-02-13 17:34:00 GMT](#)
- [AMA-NOR-2008-02-13 17:24:00 GMT](#)
- [AMA-NOR-2008-02-13 17:14:00 GMT](#)
- [AMA-NOR-2008-02-13 17:04:00 GMT](#)
- [AMA-NOR-2008-02-13 16:55:00 GMT](#)
- [AMA-NOR-2008-02-13 16:45:00 GMT](#)
- [AMA-NOR-2008-02-13 16:35:00 GMT](#)
- [AMA-NOR-2008-02-13 16:25:00 GMT](#)
- [AMA-NOR-2008-02-13 16:16:00 GMT](#)
- [AMA-NOR-2008-02-13 16:06:00 GMT](#)
- [AMA-NOR-2008-02-13 15:56:00 GMT](#)
- [AMA-NOR-2008-02-13 15:46:00 GMT](#)
- [AMA-NOR-2008-02-13 15:37:00 GMT](#)
- [AMA-NOR-2008-02-13 15:27:00 GMT](#)
- [AMA-NOR-2008-02-13 15:17:00 GMT](#)
- [AMA-NOR-2008-02-13 15:07:00 GMT](#)

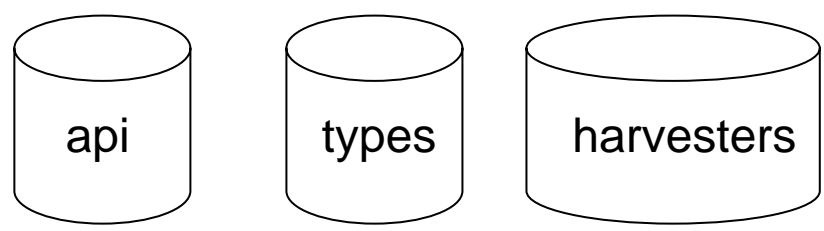
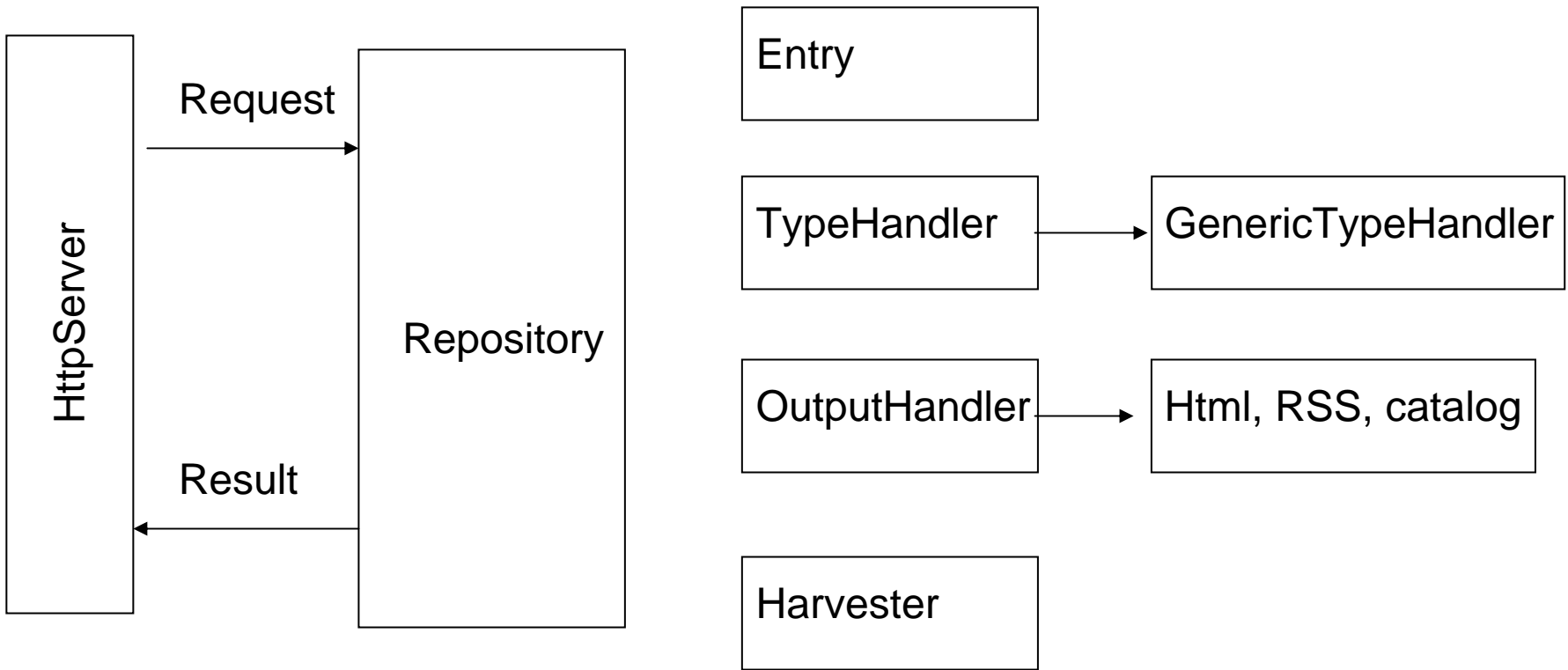
Applet ucar.unidata.ui.TimelineApplet started

Now: Cloudy, 24° F Tue: 44° F Wed: 53° F

# Search Results as RSS Feed

- Output handlers are extensible
- E.g., html, timeline, rss, catalog, etc.







IDV

Catalog  
Gen.

TDR

ADDE

LEAD

LDM

Repository

# Issues

- Scalability & Performance
- Database Technology
- Is common metadata enough?
- Descriptive metadata model
- Service integration
- Etc – users, authentication, security, access control, ...
- ???